

Docket No.: 63146A US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Ashish Sen, et al.

Application No.: 10/578,547

Confirmation No.: 9470

Filed: May 5, 2006

Art Unit: 1791

For: ELONGATED CROSS SECTION ELASTIC
FIBERS FOR STABLE PACKAGES

Examiner: L. W. Thrower

AMENDMENT IN RESPONSE TO FINAL OFFICE ACTION

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Madam:

RESPONSE

In response to the Office Action dated November 23, 2009, please amend the claims as detailed hereinafter and reconsider the claims in view of the arguments presented hereinafter. A request for continued examination (RCE) accompanies this response.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 4 of this paper.

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims: :

- 1) (currently amended) In a process for winding a melt spun monofilament elastic fiber onto a core for forming a package and/or warp beam for use in knitting or weaving operations, the improvement comprising: forming the elastic fiber into a shape having a fiber cross section such that the width of the fiber is at least 1.5 times the thickness of the fiber, prior to winding onto the core wherein the elastic fiber will recover at least about 50% of its stretched length after a first pull and after a fourth pull to 100% strain.
- 2) (original)The process of Claim 1 wherein the width of the cross-sectional area is at least 3 times the thickness of the fiber.
- 3) (original)The process of Claim 1 wherein the width of the cross-sectional area is at least 5 times the thickness of the fiber.
- 4) (original)The process of Claim 1 wherein the elastic fiber is an olefin polymer.
- 5) (original)The process of Claim 1 wherein the elastic fiber is a linear ethylene-alpha olefin interpolymer.
- 6) (original)The process of Claim 1 wherein the elastic fiber is a substantially linear ethylene-alpha olefin interpolymer which has been substantially crosslinked.
- 7) (original)The process of Claim 1 wherein the fiber is formed using dies having an opening which has two generally perpendicular axes, wherein one axis is at least about 1.5 times longer than the other axis.
- 8) (original)The process of Claim 1 wherein the fiber is formed using dies having an opening which has two generally perpendicular axes, wherein one axis is at least about 3 times longer than the other axis.
- 9) (Canceled)
- 10)(withdrawn) An improved package for elastic fiber comprising: a length of elastic fiber wound around a core, wherein the elastic fiber has a cross sectional area such that the width of the fiber is at least 3 times the thickness of the fiber prior to winding the elastic fiber onto the tube core

- 11) (withdrawn) A process for forming an elastic fiber wherein the fiber is formed using a die having one or more openings which have two generally perpendicular axes, wherein one axis is at least about 3 times longer than the other axis.
- 12) (withdrawn) The process of Claim 11 wherein the fiber is used in a nonwoven structure
- 13) (withdrawn) The process of Claim 11 wherein the fiber is used as a binder fiber.
- 14) (withdrawn) The process of Claim 13 wherein the binder fiber is a bicomponent fiber.
- 15) (withdrawn) The process of claim 11 wherein the fiber is wound onto a package or warp beam.
- 16) (withdrawn) Fabric comprising a fiber made from the process of claim 11.
- 17) (withdrawn) The Fabric of claim 16 wherein the fabric is woven or knitted.

REMARKS/ARGUMENTS

The above amendments were previously submitted (except that “the first” and “the fourth” were changed to “a first” and “a fourth”, respectively, in order to provide proper antecedent basis), but not entered, due to the after-final status. Claim 1 has been amended to incorporate the definition of “elastic” as stated at page 3, lines 17-19 of the specification. Accordingly, no new material is added and the entry of this amendment appears proper. Applicants’ representative sincerely thanks the Examiner for the courtesies extended during a telephonic interview during which the above amendment was discussed. While no agreement as to the final allowability of the claims was reached during said interview, the Examiner acknowledged that the present amendment would help to distinguish the art currently of record.

The following arguments were presented in the response after final, and are simply being repeated for completeness of this response.

The Examiner has rejected claims 1-4 35 USC §102(b) as being anticipated by Balchan (US 3,605,818). The Examiner has stated that Balchan discloses a process for winding a melt spun monofilament elastic fiber onto a core for forming a package. The applicants contest this assertion. Specifically, it is abundantly clear that Balchan relates to multifilament yarns rather than monofilament yarns as recited in the claims of the present application. For example, col. 3, lines 42-43 of Balchan recites, “In practicing the method of my invention, I utilize two or more *multifilament* yarns . . .” (emphasis added). There is also no teaching that the fibers should be melt spun fibers. The Examiner has cited col. 4 lines 41-72 for support, but the only hint of melt spinning in this section is a description that two polymers could be melt mixed and thereafter extruded in filamentary form (see col. 4, lines 70-72). While melt spun fibers may be included in this description, the description is broad enough to include fibers which are not melt spun, for example spun bond fibers. Finally, there is no suggestion in the passages quoted by the Examiner that the fiber of Balchan is elastic. This is particularly evident in the amended set of claims which now incorporates the definition of “elastic”, making it clear that a very special class of fibers is being claimed and not any fiber which may exhibit some minimal degree of elasticity.

As Balchan is clearly not a novelty-destroying reference, Balchan would only be relevant in evaluating whether a person of ordinary skill in the art would seek to modify elastic fiber in the way taught by Balchan. For the reasons set forth in the previous response, a person in the art

of elastic fibers would not seek to incorporate the teaching of Balchan as the problems Balchan solves are not relevant to elastic fibers. Accordingly, it is respectfully requested that all rejections based on Balchan be withdrawn.

Next, the Examiner has rejected claims 1-3 and 7-8 under 37 USC § 102(e) as being anticipated by Koyanagi et al. (US 2003/0108740). The Examiner states that Koyanagi relates to a process for winding a melt spun monofilament elastic fiber onto a core for forming a package. Applicants also respectfully contest this assertion, as there is no teaching that Koyanagi's fibers are "elastic" as defined in the present specification, and now expressly recited in the claims. The Examiner has responded to previous arguments along this line by referring to paragraph 12 for the proposition that Koyanagi discloses the fibers to be "excellent in elastic recovery". Applicants respectfully point out that paragraph 12 is describing one of the problems to be solved by the invention set forth in Koyanagi. It appears that Koyanagi is saying that the "excellent" elastic recovery leads to high tension and therefore yarn breakage. That Koyanagi teaches the bicomponent structure as a partial solution to this problem, suggests that elasticity in its inventive fiber is to be minimized. At any rate, even if such fibers have some elasticity, they are not "elastic" fibers as that term is defined in the specification, and now expressly included in the claims.

In responding to the previous response, the Examiner has stated, "The reason for the elongation is irrelevant to anticipation" (emphasis original). Applicants agree with this statement, but as shown above, Koyanagi does not anticipate the present claims. When evaluating whether a person of ordinary skill in the art of elastic fiber would apply the teachings of Koyanagi to an elastic fiber, the reason for using a fiber having an elongated cross section is highly relevant. As no reason is given for the elongated cross-section in Koyanagi which would be applicable to melt spun fibers typically used in fibers. There is no reason why a person of ordinary skill in the fiber art would incorporate this teaching. As explained in the last response, this is particularly true when there are likely reasons for flattening the fiber which would have no relevance to elastic fiber which is primarily used in textiles. Accordingly, it is respectfully requested that all rejections based on Koyanagi also be withdrawn.

The applicants courteously request that the Examiner reconsider the claims in light of the above amendments and arguments, withdraw the rejections, and pass the case to allowance.

Application No. 10/578,547
Amendment dated February 23, 2010
Reply to Office Action of February 3, 2010

Docket No.: 63146A US

Dated: February 23, 2010

Respectfully submitted,

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